

TESTIMONY OF  
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DIVISION OF OIL AND PUBLIC SAFETY, DENVER, COLORADO

Before the  
HOUSE GOVERNMENT REFORM COMMITTEE  
Subcommittee on National Security, Emerging Threats, and International Relationships

Concerning:  
*Thefts of Explosives from State and Local Government Storage Facilities are few, but may be underreported and State of Colorado regulations concerning the storage and security of explosive materials.*

October 31, 2005 Field Hearing, San Mateo, California

Mr. Chairman and Members of the Subcommittee:

My name is Dr. Vilem Petr, Research Assistant Professor at Colorado School of Mines. I am also an Explosive Inspector with the State of Colorado, Department of Labor and Employment, Division of Oil and Public Safety, Denver, Colorado. I have more than 17 years of experience in the explosives industry. My first hands-on explosive experience began during my work as a mining engineer at the largest national ceramic company in the Czech Republic. Some of my responsibilities involved finding ways to improve explosive material transportation, explosive storage and explosive material handling for quarries and pits around the Czech Republic. During this time, I obtained my first blasting license.

In 1992, I came to the United States and spent several years at the University of Wisconsin, Milwaukee, where I was improving my skills in the English language. In 1995, I was accepted for the Masters program at the New Mexico Institute for Mining and Technology where I conducted research for rock fragmentation by explosives. In 1997, I began my Ph.D. program at Colorado School of Mines. My research included experimental and numerical studies on shock wave propagation within a geo-medium. After finishing my program in 2002, I continued on at Colorado School of Mines as research Assistant Professor. During this time, I have helped develop an explosive engineering program for undergraduate students. A month ago, I accepted a temporary position with the Division of Oil and Public Safety, Denver Office. In this role, I will help with the training of a new explosive field inspector and will help with the investigation of some of the technical cases. In addition, I will be involved in approving new candidates for state explosives licenses and in the development of new training programs for blasters and explosive end users. I would like to make disclaimer that all my opinions and recommendations are based on my personal, professional and practical experiences.

During this last fifteen years, the Department of Labor, Division of Oil and Public Safety, established rules and regulations for the usage of explosives materials in the State of Colorado. These rules and regulations address the manufacture, possession, sale, storage, transport, and disposal of explosive materials or blasting agents in the interest of life, health, and safety of employees, and the general public, as well as the protection of properties. The main reason for these changes was not due to international politics, but rather had to do with the large population growth in the State of Colorado. The population along the Front Range and Western Slope has almost doubled in the last ten years. 2002 in response to the September 11, 2001 additional explosive regulations were introduced on persons which are prohibited from receiving or possessing explosives.

A primary strategic goal of the Division of Oil and Public safety is to ensure implementation of statutory mandates or requirements, maintain a safe Colorado work, educational and living environment utilizing codes and standards and rules adopted by Division of Oil and Public safety. This includes the administer, investigate, inspect and enforce state wide compliance with laws and regulations promulgated under Title 8, C.R.S., regulation of carnival and amusement parks and Title 9, C.R.S., Explosive Regulation and Inspection. Prepare and administer exams to qualified applicants, assist local and federal law enforcement by conducting investigation upon request, conducts training and fully knowledgeable of federal and local laws pertaining to the use of explosives for purposes of proper application. As well as consistently monitor changes to federal regulations for conflict with state regulations. Issues permits to qualified applicants. Assists the Attorney General's office in representing the State of Colorado in hearings held for the denial, suspension or revocation of explosives permits, conducts inspections to ensure compliance. Educates the public and permit holders about their legal rights and responsibilities. The Division of Oil and Public Safety mandates that it is against the law for any person to physically touch or possess any amount of explosive material without a valid permit, and will be processed according to criminal law.

Last year, the U.S. explosives production was 2.52 million metric tons (Mt). This is a 10% increase from 2003. This data is based on reported sales of explosives from every state. Coal mining, with 67% of total consumption, continued to be the dominant use of explosives in the United States. Wyoming, West Virginia and Kentucky, led the nation in coal production, accounting for 59% of the total. These states were therefore, the leading users of explosives. Colorado falls within the top twenty-five states in terms of explosive consumption. (Reference: The Institute of Makers of Explosives, Newsletters)

Additional explosives usage in the State of Colorado in the last ten years had to do with the increased cost of energy and new energy exploration for natural gas in Colorado. New wells need to be perforated by using explosive devices. Some of the older wells need to be reopened using explosive material. Explosive devices are also needed for clean up of the wells. The rising price of precious metals and uranium on the world market has increased mining activities in the State. Due to the population growth, usage of explosive materials has grown each year as new demands for quarrying, construction and

transportation are made. Another active use of explosives is in the avalanche control industry which is driven by tourist trade and transportation demands.

## EXPLOSIVE STORAGE REGULATIONS ENFORCED BY STATE OF COLORADO AND ATF

The State of Colorado explosive regulations were revised on March 30, 2005 and several new changes were introduced. These changes are a direct result of the introduction of new technical developments in the explosive industry, such as a new initiation system and electronic detonators.

Colorado regulations have three permit types and classifications. The permits are separated according to type. A permit may have more than one designated classification; however, for each and every classification requested, an application must show legitimate use and qualification. The qualification must be reinforced by more than one (1) year of practical hands-on training under the supervision of an experienced blaster or explosive manufacturer. Companies who hold Type II and Type III permits must submit a written request demonstrating that the applicant successfully finished one year of practical training and the applicant is ready for a state exam for a type I permit. The State of Colorado's explosive regulatory system is working in conjunction with the explosive industry. I would like to add that our Mining Engineering Department in particular has a very good relationship with the explosive industry. The Mining Engineering Department has ongoing research with leading world explosives companies on new explosives products and new blasting technologies.

The Type I permit is designed for all individuals who possess and control explosives materials and are classified as users: construction, construction limited, quarry operations, avalanche control, geophysical exploration, transporter, and special use.

The Type II permit is for corporations, companies, partnerships, firms, individuals operating a business, associations, or state or local government agencies involved in the use, purchase, sale, manufacture, transportation, or disposal of explosive materials. The Type II permit has the following classifications: classification as a manufacturer of explosives, classification as a dealer of explosives, classification as a purchaser of explosives, classification as a purchaser limited, classification as a user of explosives and transportation.

The Type III permit is for corporations, companies, partnerships, firms, individuals operating a business, associations, or state or local government agencies that store explosives within storage magazine sites. Each magazine has written notification of the location of the permanent storage magazine site and this information will be made available to the fire district or department. Duration of the permit can not exceed more than three (3) years and will be inspected by the Division of Oil and Public Safety prior to the renewal of the Type III permit. Temporary explosive magazines may not exceed a

**Table 1.** Types of businesses who use explosive material and the number of applicants for each category in Colorado in 2005. (Reference Database of Division of Oil and Public Safety)

<b>Category</b>	<b>Type II</b>	<b>Category</b>	<b>Type II</b>
Construction	237	Manufacturing	14
Quarry	16	Seismic	34
Distributor	12	Avalanche	38
Government	33	Power	29
Law	26	Water	8
Excavation	41	Telephone	0
Mining	28	Well	39
Demolition	7	Logging	0
Agribusiness	17	Research	16
Hazardous	8	Highways	6
Ranching	20	Other	35
Aircraft	1	Unknown	14

ninety (90) day period, upon written notification to the Division of Oil and Public Safety of the location of the magazine site, and supplier of the magazines being utilized, the type and quantity of explosives being stored and proof of the written notification of the location of the storage magazine to the applicable fire district or department and county sheriff.

The Division of Oil and Public Safety office oversees 24 different types of business categories for the use of explosives:

Construction, quarry, distributor, government, law, excavation, mining, demolition, manufacturing, seismic, avalanche, power, water, telephone, well, logging, agribusiness, research, hazardous, ranching, highways, aircraft, other and unknown. For more details see Table 1.

As of October 22, 2005, the State of Colorado has 1727 active Type I permits, 679 Type II permit renewals, and 287 Type III permit renewals.

The Federal and state criminal and regulatory authority over explosives extends back to the Organized Crime Control Act of 1970. This act imposed control over the manufacture, distribution, importation and storage of explosives, and gave the ATF and each State, enforcement responsibility for these controls. This status was amended by the Safe Explosive Act of 2002 in response to the September 11, 2001 terrorist attacks. The Safe Act was signed into law by the President on November 25, 2002. Congress renamed ATF the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), and introduced the Act which adds three new categories of persons prohibited from receiving or possessing explosives: (1)-aliens (with limited exceptions), (2) persons who have been

dishonorably discharged from military, and (3) citizens of the United States who have renounced their citizenship.

Only Federal government agencies, law enforcement and military personnel are exempt from storage requirements, as described in ATF regulation 18 USC Sec. 845(a)(6).

## EXPLOSIVE INCIDENTS, THEFTS AND STATISTICS

In 2004, there were 1798 explosive licenses and renewals permitted in the State of Colorado. Over the last ten (10) years there have been few explosive thefts in the state of Colorado.

In 2003, there was an explosive theft in Colorado Springs in which burglars cut a Master padlock on a storage trailer (type V magazine) at a quarry site and took eight 40-pound bags of ANFO. ANFO is classified as a blasting agent and is not detonator sensitive. Officials said they had no information that pointed to terrorist involvement, but to my knowledge, none of the stolen explosive material was recovered. (Reference :USA Today 7.18.2003)

Division of Oil and Public Safety office do provide voluntarily requested inspections for storage facilities owned by police departments. In the last few years the Division of Oil and Public Safety office have developed good cooperation with Sheriff's departments and bomb technicians around the State of Colorado. I believe that our Achilles weak point for the better regulation and control of explosive materials storage is the exemption of the mandatory inspections of the Federal agencies, law enforcement and military storage facilities. They should be held to the same standards and regulations as any explosives user.

## ADDITIONAL STATE OF COLORADO REGULATORY EFFORTS FOR STORAGE AND REPORTING THEFT OF EXPLOSIVES MATERIALS

The Division of Oil and Public Safety continues to work with the International Society of Explosive Engineers, ATF, Department of Natural Resources Division of Minerals and Geology, and The Institute of Makers of Explosives (IME). Division inspectors attend numerous seminars and events sponsored by these organizations and work with these groups to quickly integrate new information.

## RECOMMENDATIONS:

- (1) I believe that the ATF should be able to conduct mandatory inspections for explosive storage and explosive handling of state and local government entities and police forces.

- (2) The state regulatory department should be able to conduct mandatory inspections of the storage facilities of police forces as well as other explosive users, manufacturers and dealers.
- (3) Federal financial support / grants should be required to develop uniform training courses and exams which are standardized nationally for quality and depth of knowledge. These courses and exams should be transferable to other states with minimal testing or with emphasis on the site specific requirements.

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to testify today and share with you information on behalf of the Division of Oil and Public Safety in the State of Colorado explosive regulations, storage and handling of explosive materials. As well, we understand that one of our main responsibilities is general public safety. Good cooperation between federal and state agencies is necessary to win the fight against terrorism. I would be happy to answer any questions you may have.

Respectfully,

Dr. Vilem Petr